STDs Among Men Who Have Sex with Men

Public Health Impact

In the early 1980s, rates of reportable STDs among men who have sex with men (MSM) declined as they did for the rest of the U.S. population. Data from syphilis surveillance, the Gonococcal Isolate Surveillance Project (GISP), and several U.S. cities indicate that since 1993, an increasing number of MSM are acquiring STDs.[1,2,3,4]

Increases in STDs among MSM are consistent with behavioral data suggesting that an increasing number of MSM are participating in sexual behavior that places them at risk for STDs and HIV infection.[5] Several factors may have contributed to this change, including the availability of highly active antiretroviral therapy (HAART).[6] Because STDs, and the behaviors associated with them, increase the likelihood of acquiring and transmitting HIV infection,[7] the rise in STDs among MSM may signal an increase in the incidence of HIV infection among MSM.

Observations

- National STD surveillance data reported to CDC does not include information regarding sexual behaviors, and, therefore, overall STD trends among MSM in the U.S. are not available. Data from special projects and analyses are presented to provide information regarding STDs among MSM.

Monitoring Trends in Prevalence of STDs, Tuberculosis, and HIV Risk Behaviors Among Men Who Have Sex with Men (MSM Prevalence Monitoring Project)

- In 2001, seven U.S. cities (Chicago, Denver, the District of Columbia, Houston, Long Beach, Philadelphia, and Seattle) participating in the MSM Prevalence Monitoring Project submitted gonorrhea, chlamydia, syphilis, and HIV data from MSM attending STD clinics to CDC. The MSM Prevalence Monitoring Project includes data collected during routine care and reflects testing practices at participating clinics.
- Overall, 77% (range 22-100% by clinic) of MSM were tested for urethral gonorrhea, 43% (range 28-73%) for rectal gonorrhea, 64% (range 48-80%) for pharyngeal gonorrhea, and 72% (range 0-98%) for urethral chlamydia. Median STD test positivity by clinic among MSM was the following: urethral gonorrhea, 12% (range 10-31%); rectal gonorrhea, 6% (range 3-8%); pharyngeal gonorrhea, 3% (range 1-8%); and urethral chlamydia, 6% (range 5-8%). STD positivity varied by race and ethnicity, but tended to be highest among African-American MSM (Figure AA).
- Among MSM who had not previously tested HIV-positive, 46% (range 0-63%) were tested for HIV. Median HIV test positivity by clinic for African-Americans

was 8% (range 0-18%); Hispanics, 5% (range 0-12%); and whites, 2% (range 0-5%) (Figure AA).

- Overall HIV prevalence (including those previously testing HIV-positive) was 21% for African-Americans (range 10%-29%), 10% (range 3-18%) for Hispanics, and 8% (range 3-22%) for whites.
- Overall, 82% (range 71-91%) of MSM had a nontreponemal serologic test for syphilis (STS) performed. Of STS performed, 4% (range 0-11%) were reactive.
- Gonorrhea positivity was higher for HIV-positive than HIV-negative MSM or MSM of unknown status; urethral gonorrhea was 19% and 11%; rectal gonorrhea was 8% and 5%; and pharyngeal gonorrhea was 5% and 2%, respectively. Urethral chlamydia positivity was 5% among HIV-positive and 6% among HIV-negative MSM or MSM of unknown status (Figure BB).

Nationally Reported Syphilis Surveillance Data

- Primary and secondary (P&S) syphilis increased slightly in the U.S. in 2001, and this increase occurred only among men. Trends in syphilis male-to-female rate ratios, which may reflect trends among MSM, have been increasing in the U.S. during recent years (Figure 27). The increase in these ratios has been particularly marked in cities with outbreaks of syphilis among MSM.
- In 2001, the reported rate of P&S syphilis among men (3.0 cases per 100,000 males) was 2.1 times greater than the rate among women (1.4 cases per 100,000 females). The overall male-to-female rate ratio has risen steadily since 1996 when it was 1.2. An increase in the male-to-female rate ratio occurred in all racial/ethnic groups between 2000 and 2001. Additional information on syphilis can be found in the **Syphilis** section.

Gonococcal Isolate Surveillance Project (GISP)

- GISP reports the percentage of *Neisseria gonorrhoeae* isolates obtained from MSM.[8] Overall, the proportion of isolates coming from MSM increased from 4% in 1988 to 17% in 2001 in GISP clinics, with most of the increase occurring after 1993 (Figure CC). The number of GISP clinics having greater than 5% of GISP isolates from MSM rose from 7 clinics in 1990 to 16 clinics in 2001. Among the 16 GISP clinics with greater than 5% of isolates coming from MSM in 2001, the percentage of patients who were MSM ranged from 6% to 66%, with a median of 20% (Figure DD). Additional information on GISP may be found in the **Gonorrhea** section.

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[1] Centers for Disease Control and Prevention. Resurgent bacterial sexually transmitted disease among men who have sex with men- King County, Washington, 1997-1999. *MMWR* 1999;48:773-7.

[2] Centers for Disease Control and Prevention. Outbreak of syphilis among men who have sex with men – Southern California, 2000. *MMWR* 2001;50:117-20.

[3] Centers for Disease Control and Prevention. Gonorrhea among men who have sex with men – Selected sexually transmitted disease clinics, 1993-1996. *MMWR* 1997;46:889-92.

[4] Fox KK, del Rio C, Holmes K, et. al. Gonorrhea in the HIV era: A reversal in trends among men who have sex with men. *Am J Public Health*. 2001;91:959-964.

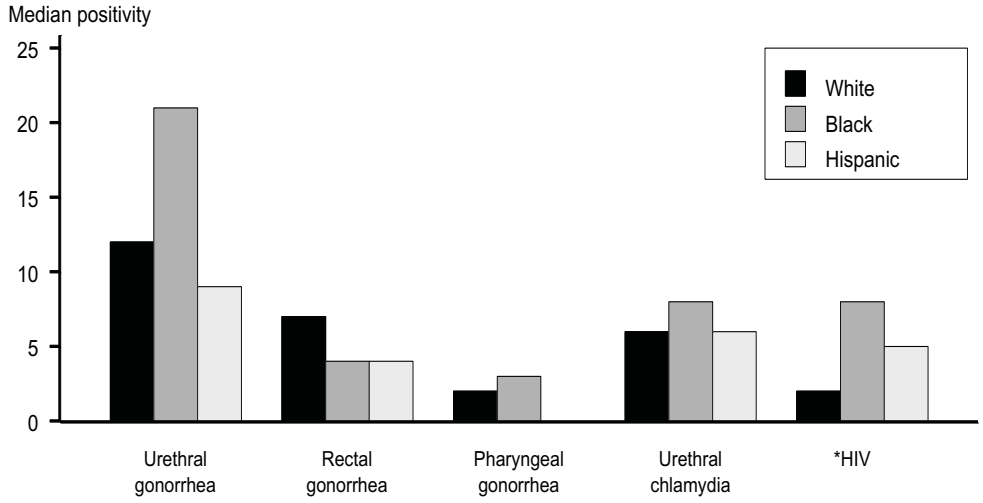
[5] Stall R, Hays R, Waldo C, Ekstrand M, McFarland W. The gay '90s: a review of research in the 1990s on sexual behavior and HIV risk among men who have sex with men. *AIDS* 2000;14:S1-S14.

[6] Scheer S, Chu PL, Klausner JD, Katz MH, Schwarcz SK. Effect of highly active antiretroviral therapy on diagnoses of sexually transmitted diseases in people with AIDS. *Lancet* 2001;357:432-5.

[7] Fleming DT, Wasserheit JN. From epidemiologic synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sex Transm Infect* 1999;48:773-7.

[8] Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance 2001 Supplement: Gonococcal Isolate Surveillance Project (GISP) Annual Report 2001*. Atlanta, GA: U.S. Department of Health and Human Services (in press).

Figure AA. MSM Prevalence Monitoring Project — Median test positivity by clinic for gonorrhea, chlamydia, and HIV among MSM attending STD clinics, by race/ethnicity, 2001



*Excludes persons known to be HIV-positive.

Figure BB. MSM Prevalence Monitoring Project — Median test positivity by clinic for gonorrhea and chlamydia among MSM attending STD clinics, by HIV status, 2001

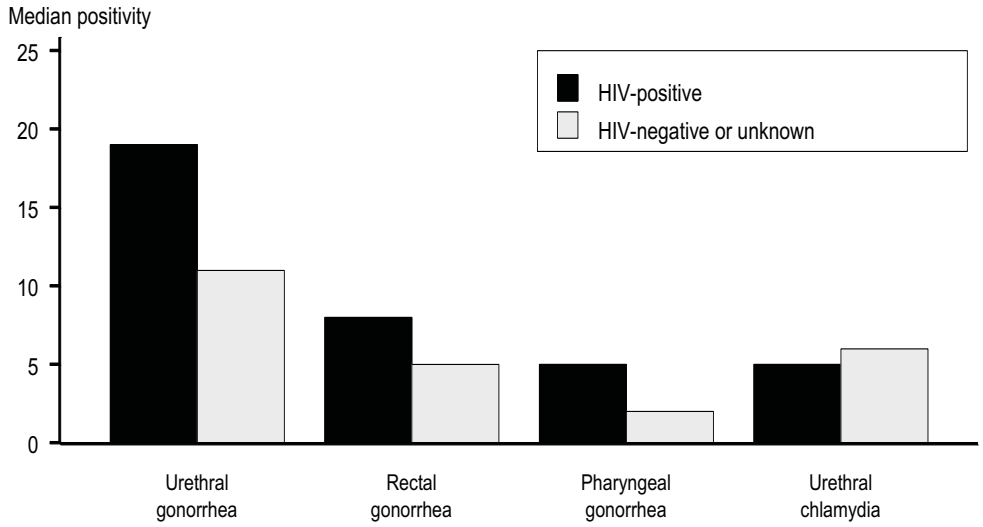


Figure CC. Gonococcal Isolate Surveillance Project (GISP) — Percent of gonorrhea cases that occurred among MSM, 1988-2001

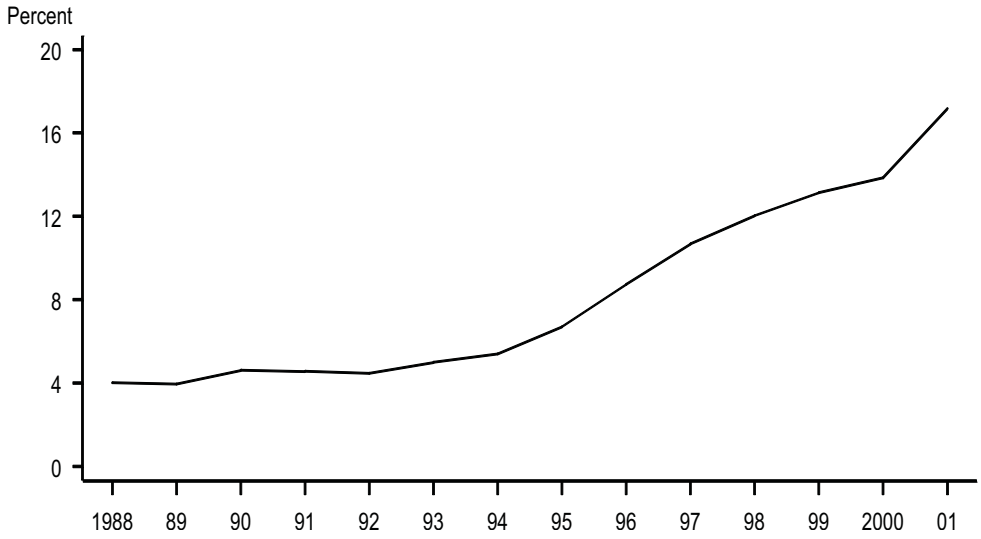
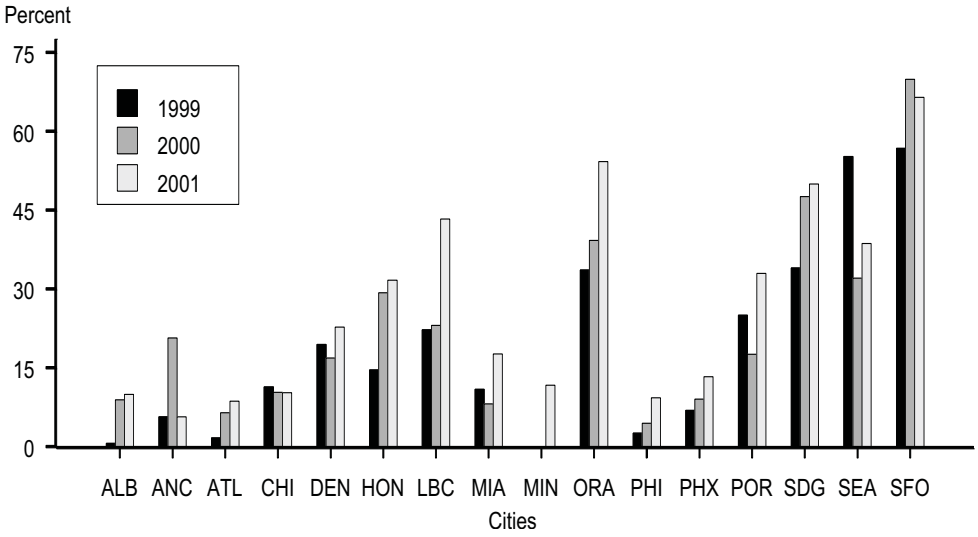


Figure DD. Gonococcal Isolate Surveillance Project (GISP) — Percent of *Neisseria gonorrhoeae* isolates obtained from MSM attending STD clinics in 16 cities, 1999, 2000, and 2001



Note: In 2001, these 16 clinics reported 95.2% (853/896) of GISP gonorrhea cases among men who have sex with men (MSM). Clinics include: ALB=Albuquerque, NM; ANC=Anchorage, AK; ATL=Atlanta, GA; CHI=Chicago, IL; DEN=Denver, CO; HON=Honolulu, HI; LBC=Long Beach, CA; MIA=Miami, FL; MIN=Minneapolis, MN; ORA=Orange County, CA; PHI=Philadelphia, PA; PHX=Phoenix, AZ; POR=Portland, OR; SDG=San Diego, CA; SEA=Seattle, WA; and SFO=San Francisco, CA.